Final Notes March 30, 1999

IMPLEMENTATION TEAM MEETING NOTES

March 4, 1999, 9:00 a.m.-4 p.m.

NATIONAL MARINE FISHERIES SERVICE OFFICES
PORTLAND, OREGON

I. Greetings, Introductions and Review of the Agenda.

The March 4, 1999 meeting of the Implementation Team, held at the National Marine Fisheries Service's offices in Portland, Oregon, was chaired by Brian Brown of NMFS and facilitated by Donna Silverberg. The agenda for the March 4 meeting and a list of attendees are attached as Enclosures A and B.

The following is a distillation (not a verbatim transcript) of items discussed at the meeting, together with actions taken on those items. Please note that some enclosures referenced in the body of the text may be too lengthy to attach; all enclosures referenced are available upon request from NMFS's Kathy Ceballos at 503/230-5420 or via email at kathy.ceballos@noaa.gov.

Brown and Silverberg welcomed everyone to the meeting, led a round of introductions and a review of the agenda.

II. Updates.

a. In-Season Management. TMT Chair Cindy Henriksen reported on recent procedural matters discussed by the group, saying first that the TMT has now finalized its Guidelines for 1999. Basically, the 1999 Guidelines are very similar to last year's, she said; there are a few procedural changes, notably to the weekly meeting agenda, where the TMT has agreed that any System Operational Requests will be the first item discussed. We have also updated the TMT membership list, Henriksen reported, adding that the current draft of this document is available via the TMT's Internet homepage, if any IT members wish to review it.

Barring any disagreement from the IT, she continued, the TMT will consider its 1999 Guidelines final. No IT disagreements were raised; consider them final, said Brown -- good job.

The TMT is now working to finalize its 1999 Water Management Plan, Henriksen continued; we have agreed that this year's Plan will be streamlined, and written for the TMT, rather than a general, audience. Other than that, few substantive changes are contemplated to the 1999 Water management Plan. TMT comments on the current draft of the Plan are due March 15, Henriksen said; our goal is to meet the April 15 target date identified in the Biological Opinion for finalizing the Plan.

Does it look, at this point, as though any Water Management Plan-related issues will need to be elevated to the IT? Brown asked. I don't know, Henriksen said – I should have a better feel for that after the TMT's March 18 meeting.

Moving on, Henriksen said the March early-bird runoff forecast is now available; with all of the recent rain and mountain snow, the forecast shows an upward trend compared to the February final. The Grand Coulee January-July forecast is now 73.2 MAF, 116% of average, up from a February final forecast of 113% of average. The biggest change is in the Snake Basin, Henriksen said – at Lower Granite, the April-July forecast is now 27.2 MAF, 126% of average, up from 109% of average in the February final. At The Dalles, the January-July forecast is now 125 MAF, 119% of average, up from 112% of average in the February final. Henriksen added that the March final water supply forecast is expected to be available by this Monday, March 8.

Once the March final forecast is received, she said, the Corps will run another round of hydrosimulations, based on the 60-year historic water supply record, to give us a sense of what the runoff shape, and spring and summer operations, might look like. We will update the spring and summer BiOp flow objectives for Lower Granite and McNary once the forecast is received, said Henriksen, and will also update the information in the Water Management Plan, so that document can be finalized.

Given the new runoff forecast, wouldn't you anticipate that the probability of meeting the spring flow targets at McNary and Lower Granite is close to 100%? asked Jim Ruff of the Council staff. Yes, Henriksen replied – even with the February final numbers, we were already very close to 100% probability.

b. Plan for Analyzing and Testing Hypotheses (PATH). The PATH report was presented under Agenda Item III, below.

c. Integrated Scientific Advisory Board (ISAB). Ruff said the ISAB's final Phase III Overview report on the Corps' CRFM program has now been completed and presented to the Council. He said this document is available via the Council's Internet homepage: http://www.nwppc.org/99-3.htm (a copy has also been attached as Enclosure C).

Ruff said that, as part of its FY'98 Appropriations language, Congress directed the Council, together with the ISAB, to review the Corps' Capital Construction (CRFM) program. The main purpose of the review was to identify the need for multiple fish passage strategies, and whether some strategies should be modified or deferred.

Now that the ISAB review is completed, said Ruff, Council staff have also completed and released a draft issue paper containing their recommendations on the CRFM program. The issue paper was released for public review and comment on March 1; the comment period closes Monday, March 29. The ISAB overview report has also been released for comment, said Ruff, but I would encourage you to address your comments to the Council's issue paper, because the ISAB does not intend to revise its final report. The issue paper, on the other hand, is still subject to modification based on comments received.

The issue paper will provide the basis for the Council's final report to the Corps and to Congress, Ruff continued. On March 17, he said, I will be presenting this issue paper to the Council; there will be an opportunity for public comment at that meeting.

Once the comment period ends, Ruff continued, Council staff will immediately begin to review and summarize the comments received, and to incorporate what comments we can into the final draft of the issue paper, before it is presented for Council review. The goal is to obtain Council approval of the final review report and recommendations at the Council work session April 27-28 in Portland, so that it can be sent to Congress and the Corps by the end of April.

Ruff said the Council staff's recommendations are generally pretty much in line with what the ISAB has recommended in its technical reports. The staff issue paper begins with an overview of common issues in mainstem passage, then moves into more specific issues, based on the other reports received from the ISAB during earlier phases of the review. In terms of the overview of common issues, Council staff saw two interrelated themes, based on what the ISAB said in their overview report, said Ruff – that the fish passage solutions should protect biodiversity, and that passage solutions that best fit natural behavior patterns should be favored. In other words, said Ruff, Council staff's recommendations are that the best passage solutions would be those that take into account the behavior and life-history of the various species that are likely to encounter these systems, to avoid favoring or selecting against one species over another -- otherwise, we're headed down the road to future listings for the species selected against.

Another item referenced in the ISAB overview report is the fact that multiple passage measures at each dam are a rational result of considering these two interrelated themes. As I mentioned at the beginning, said Ruff, the original purpose was to weed out some passage solutions that may be duplicative; I think what the ISAB found, in their report, is that there is no "silver bullet" that will provide optimal passage conditions for all species and life-histories. Instead, what the report suggests is that we may be looking at multiple passage strategies at a given project -- for example, screens and surface bypass, with spill. We try to make clear, in our

recommendations, that we cannot, at this time, weed out some of the passage strategies, and there is a rationale for looking at multiple passage strategies, Ruff said.

I have heard, from various people who were present during the ISAB's overview presentation to the Council, that the report seemed very critical of what the region is now doing to improve mainstem passage, Ruff continued. I didn't take it that way, and I don't think the rest of the Council staff took it that way, either. We are taking the report as constructive criticism, not as criticism of what the SCT and the region has done so far. What the ISAB is encouraging us to do is to look at different approaches, and at different ways to design and build fish passage facilities in the future, Ruff said.

In that light, he continued, what the Council is recommending is that the Corps and others in the region who are making the decisions about dam modifications to improve passage try to be consistent with the principals and guidelines set out in the ISAB's report, and in the Council staff report. Most importantly, said Ruff, passage standards, targets, designs and evaluations should all be focused on protecting the widest possible array of species and life-history types, rather than the weighted average of the most abundant species. Ultimately, the reports recommend that we try to relate increases in survival to adult returns to the spawning grounds and hatcheries,

rather than short-term survival of juveniles and adults through the hydrosystem. Two of the major research uncertainties the ISAB found in the mainstem had to do with delayed mortality effects on both juveniles and adults after they leave the hydropower system, Ruff added.

As far as how this report will be used, said Ruff, the Council will expect that the Independent Scientific Review Panel will apply the principals and guidelines embodied in the ISAB and Council recommendations during its review of the reimbursable portion of the BPA budget, including the CRFM program. The Council will itself apply these standards in its annual review of the ISRP's report. The Council is further recommending to Congress that the annual budget request from the Corps be evaluated for consistency with these principals.

In terms of the Council staff report's recommendations on some of the specific measures reviewed, such as the Bonneville outfall and John Day extended-length screens, they are largely consistent with what the ISAB report said, with one exception, said Ruff. The Council is recommending that we move forward with prototype testing of John Day extended-length screens next year, as the SCT formulated in its FY'99 budget. The staff report also recommends that, concurrent with these prototype screen tests, the Corps should initiate and expedite evaluations of surface flow and surface spill bypass alternatives at John Day Dam. The Council plans to look for ways to move those investigations forward as fast as possible, said Ruff; the Council is also recommending that full installation of extended-length screens at the powerhouse be deferred until we have this comparison of how surface bypass shapes up at the project as well. What we want to be able to do is compare the results for a bypass solution against the baseline of spill, which is the passage strategy of choice for the most normative passage route for fish. The ISAB and Council staff are recommending that we should compare all passage strategies against spill, and unless they do as well as spill, they're in for some hard questions, said Ruff.

On your last point about the deferral of e-screen implementation at John Day pending further development of surface collection, given the fact that that will take some time to develop, do Council staff or the ISAB provide any further guidance about how to make that decision? Brown asked. It seems a bit inconsistent – on the one hand, you're saying that, in the long term, we're likely to be using multiple passage strategies at each project, and on the other hand, you're saying that a passage strategy that offers an identified means of improving passage should not be implemented for the immediate future, while we investigate an alternative.

I would urge you to look at the ISAB's overview report, Ruff replied – they go into a lot more detail on this issue than I've been able to go into today. In general, the ISAB was highly critical of extended-length screens as being selective against certain stocks and life-history types. The ISAB was much more favorable about surface bypass as a concept, because it has the potential to more naturally pass fish that are migrating in the upper third of the water column. They certainly aren't advocating that any of the screen systems that are now in place should be taken out, Ruff said. I want to be clear about the fact that, in their overview report, the ISAB says we should use screens where we have them, because they will assist the overall passage strategy. However, we may want to couple them with surface bypass and spill. Given the fact that spill is the passage strategy of choice, he added, the Council is also saying that the Corps' gas abatement program should be an extremely high priority.

Is the Council now saying that spill is the safest method of passage? asked Jim Nielsen of WDFW. Again, you'll have to read the report, Ruff replied, but I think what the ISAB said was

that spill is the closest we can come to a natural passage method, and that it is less selective against different stocks and life-histories.

d. Dissolved Gas Team (DGT). The DGT report was presented under Agenda Item V, below.

e. System Configuration Team (SCT). The SCT report was presented under Agenda Item IV, below.

III. PATH.

a. Report on the IT/PATH Subgroup. Brown reported on the outcome of the FY'99 PATH work priorities discussion at yesterday's IT/PATH subgroup meeting. The discussion was focused mainly on the work that is on PATH's plate over the next three to four months, Brown explained; the group also discussed the possibility of PATH producing an update of its 1998 report some time in the May-June time frame.

The consensus top priority work product for PATH, currently, is the fall chinook analysis, which is presently commanding almost all of the resources PATH has in an attempt to update and refine the fall chinook analysis, to bring it closer to the level of the spring chinook analysis presented in the 1998 report, said Brown. Other important work priorities for PATH over the next few months include further analyses on spring/summer chinook, and experimental management. There is a fair amount of disagreement about the relative priority of those two items, Brown said – some feel we need to do extensive additional work on the spring/summer chinook analysis, while others feel it is more important to make further progress on the experimental management approaches, because that is a high priority identified by the Scientific Review Panel.

Other work priorities discussed at yesterday's meeting included PATH's Mid-Columbia stocks analysis, potential PATH presentations to the Multispecies Framework Process and at public meetings, PATH's steelhead analysis, some work connected with the Corps' reconnaissance-level analysis of John Day drawdown and with the need to look at various alternative actions with and without flow augmentation, and finally, PATH's review of the Anadromous Fish Appendix.

At yesterday's meeting, said Brown, the group laid out several scheduling options for the completion of this work; the option that received the most support was the following:

Option B1

	Fall Chinook	**Spring/summer chinook**	**Experimental Management**
March-April	**Complete revised set of model runs** March 11: Life cycle modeling meeting	**No PATH analyses planned**	**Clarify EM approach: Describe EM options** Preliminary scoping work to be done by small group of PATH participants not fully involved in Fall Chinook analyses.

	March 18: Passage modeling meeting April 5: Passage modeling completed April 12: Life cycle modeling completed April 16: Draft fall chinook report circulated for internal review		

April 26-29	**PATH Workshop** Objectives: 1. Make significant progress on fall chinook Preliminary Decision Analysis report 2. Plan spring/summer chinook and experimental management work for remainder of FY 1999

May-June	**Finalize and distribute fall chinook Preliminary Decision Analysis report**	**Completer high priority analyses** 1. Further analyses and sensitivity analyses of D values 2. Work on Hatchery extra mortality hypotheses	**More detailed description of EM options** **Develop tools for evaluating EM options**

July-August		PATH Update report documenting work on spring/summer chinook and experimental management

Other ongoing tasks (exact timing and schedule for these is uncertain):
1. Path review of A-fish Appendix-currently planned for early April, after fall chinook passage modeling is complete and while a small number of people would be running the life-cycle model and writing a first draft of the fall chinook preliminary decision analysis report. However, the exact schedule for review of the A-fish appendix is uncertain.
2. Mid-Columbia quantitative assessment work-this is likely to continue throughout the rest of this fiscal year. However, the Mid-C work involves only a relatively small time commitment from only a few PATH participants.
3. Framework process-PATH involvement and schedule is uncertain.

Basically, Brown said, what this approach would do is allow PATH to concentrate on completing its fall chinook analysis by mid-April, so that the full group could then turn its attention to the additional spring/summer chinook analysis and experimental management. If possible, he said, I would like to come to closure on the near-term PATH work priorities at today's meeting.

Dan Daley said BPA is not convinced that PATH is the right group to develop experimental

management alternatives. That being said, in the interest of avoiding impasse and putting people to work, BPA will make staff available to work with others in PATH to help develop those experimental management alternatives, with the proviso that, as soon as the alternatives are developed, they are presented to the region for comment, Daley said. In BPA's view, alternatives of the type that are anticipated to come from the PATH group should more appropriately come from the region, but if PATH wants to kick-start that process, then have their work products reviewed by the region, that would be all right with BPA.

In response to a question, Dave Marmorek said the experimental management actions referred to as EM1, EM2, EM3 etc. are not alternatives, but incremental tasks. In response to another question, Marmorek said the best explanation of exactly what would be included under each of these actions is the one in PATH's 1998 report.

My understanding is that, under EM1, PATH would study what the SRP's recommendations were, then translate that into a plan for pursuing the SRP's recommendations, said ODFW's Tony Nigro; EM2 is a task under which PATH would describe various options for all four Hs – how to approach survival and recovery of Snake River salmon in an experimental management, or learning, mode. He added that, in general, ODFW agrees with BPA's suggested approach, under which some progress could be made on the experimental management issue, with PATH's work products to be regionally reviewed. Nielsen said WDFW concurs as well.

After a few minutes of further discussion, Collis said it sounds to her as though B1 is the option of choice, in terms of setting PATH's work priorities for the next few months. No disagreement was raised to Collis' characterization of the issue. Silverberg took a moment to thank those who participated in the resolution of this issue for their hard work, noting that it hasn't been easy to get to this point.

b. Report on the NPPC/PATH Technical Forum, February 25. Brown provided a brief report on last week's PATH technical forum, organized by NMFS and the Council as an opportunity for non-PATH participants to ask questions and offer comment on PATH's 1998 report. Brown explained that NMFS solicited questions about the PATH findings from many parties throughout the region; he thanked Chip McConnaha of the Council staff for his work in condensing the 100+ questions received into a coherent agenda for the meeting. Brown said that, thanks mainly to the hard work of the PATH panelists who participated, the forum did a very good job of clarifying some of the issues and questions people have about the PATH process and results to date. There are still questions out there, he said; the goal of the session was not to achieve consensus on the analysis, but to increase understanding of the analysis, and what the PATH's December 1998 report actually said.

IV. Decision on Spill Passage Studies at The Dalles and John Day Dams.

SCT co-chair Bill Hevlin led this discussion of this issue, noting that it hearkens back to the earlier discussion of the ISAB's endorsement of spill as the passage route of choice. This particular issue is an illustration of the fact that some, at least, believe that, when it comes to spill, there can be too much of a good thing, Hevlin said.

Hevlin distributed a packet of information containing an overview of the planned survival and

FPE studies and spill program at The Dalles in 1999 and 2000, together with comments from ODFW, WDFW, CRITFC, the Fish Passage Center and the Corps, as well as a white paper on the 1999 John Day spill program. This packet is attached as Enclosure E.

At the last IT meeting, Hevlin said, I briefed you about the effort underway in SCT and the SRWG to resolve the study design issue connected with gaining further information on juvenile passage concerns at The Dalles, specifically, spill passage. I also mentioned that, while there has been no major disagreement so far on the study plan at John Day Dam, activities at that project are related to activities at The Dalles because of transmission reliability concerns, Hevlin said. Basically, the level of spill at The Dalles affects the amount of daytime spill that is possible at John Day.

The SCT and SRWG have been working over the past months to try to reach agreement about how to proceed this spring with the studies at The Dalles, Hevlin continued. The participants in this issue have felt strongly enough that they've put their opinions down on paper; hence the thickness of the packet I distributed earlier, Hevlin said. Jim Ruff and I, as SCT co-chairs, are bringing this issue to your attention because we have been unable, at SCT, to arrive at a consensus about the study design at The Dalles. This needs timely resolution, he added, because the spring migration is only a month away.

Hevlin then presented a basic overview of the two sides to this issue, referring the IT's attention to Enclosure E for a more detailed look at each side's position. First of all, he said, we've now done two years of survival studies at The Dalles, the goal of which is to compare survival through a 64% spill level and a 30% spill level at the project. As you'll recall, he said, this study arose as a result of concerns about the configuration of The Dalles tailrace, identified during hydraulic modeling – essentially, some felt that high spill levels might be causing higher predation rates. There was also some concern about the fact that the decision to put The Dalles JBS on the shelf meant that spill and sluiceway passage were the only real passage options at that project; we felt it would be prudent to be sure that we were getting the expected high survivals at The Dalles, Hevlin explained.

Basically, there is a wide gulf in opinion among the various parties to this issue about what the information generated in this study over the last two years tells us, Hevlin continued. That's one component of this issue; there is also a great deal of debate about what needs to be studied in 1999 and beyond.

In terms of what the information tells us, Hevlin said, some feel that the variability in the survival study data is so high, and the precision so low, that the two years of data tell us very little. Generally, those who hold this opinion feel that changing the spill level from 30% to 64% every few days affects what we're trying to tease out, because tailrace conditions are too much in flux. They would prefer to see a different type of study in the future, one that would hold the spill level constant at 64% over the entire migration season. This is the type of study advocated by Oregon and Washington, Hevlin said.

NMFS, on the other hand, believes that there is enough statistical validity to the study results from the past two years to give us serious concern about passage problems at the 64% spill level, Hevlin continued. What NMFS would like to do in future years is test the hypothesis that survival is higher at the 30% spill level more rigorously, and to find out what the causal

mechanism is. To do that, we would like to see the same type of study in 1999 and beyond that has been done in the past two years, looking alternately at the two spill levels within the passage season in an attempt to gain more precision and statistical reliability.

Basically, there are valid concerns on both sides of this issue, and that's why it has been so difficult for the SCT to resolve it, Hevlin said. It has been suggested that we ask the ISAB to develop the study plan for 1999; the problem with that is the ISAB workload, given the short time we have to resolve this issue. The ISAB might be able to get to it by next fall or winter, but that would mean no study in 1999.

In terms of how this relates to John Day, Hevlin said, there is a desire to test the effectiveness of daytime spill at that project. Currently, the only spill at John Day occurs during nighttime hours. BPA has told us that economic and transmission system reliability concerns limit the amount of daytime spill you can have simultaneously at The Dalles and John Day. If we're spilling 64% daytime spill at The Dalles, essentially, we can't have 64% daytime spill at John Day. We have to balance the two, which is going to limit what we can learn at John Day, Hevlin said.

As Bill mentioned, said Ruff, what we'd like to do at The Dalles is come up with a study design that yields more precise results, because the results from the past two years' study have been questioned. The question is, are the two basic study designs proposed for 1999 – alternating 30% and 64% spill, and holding the spill level constant at 64% – equivalent, in terms of their ability to provide statistically robust results?

That's an important question, Hevlin agreed. No matter which study design is selected, said Gary Fredricks of NMFS, we're looking at the same number of release groups. We are attempting to increase the statistical precision for that three release-group scenario. In other words, he said, there should be no difference in precision between the two proposed study designs.

I would also like to be sure that everyone realizes that we're not proposing any change to the normal operations at The Dalles until these studies are concluded, Fredricks said. The Biological Opinion spill levels still apply at The Dalles, and we're only talking about the study period here. Also, while NMFS is proposing continued evaluation of survival at 30% and 64% spill at that project, we're not locked into 30%. We're just trying to gain some statistical separation between survivals at the higher and lower spill levels, he explained.

Nielsen said Hevlin had accurately described the difference in opinion on this issue; the central issue, for us, is providing fairly constant tailrace conditions for predator distribution, Nielsen said. One of the concerns about alternating between 64% and 30% spill at The Dalles is the effects of that operation on predator distribution, he continued, but beyond that, our view is that the 64% spill level was set at The Dalles to provide 80% fish passage efficiency. If there are problems with survival at that spill level, we need to identify what is causing those problems and make corrections.

In terms of the connection to John Day, Nielsen said, Washington is not convinced of the need to study 24-hour spill effectiveness at that project. As for the issue of ISAB review, he said, while I agree that it isn't realistic to expect the ISAB to review the 1999 study plan prior to the

start of the migration season, I would still like to get it on the ISAB's plate for completion as soon as possible. Even if it won't be useful for 1999, such a review would be useful for next year, Nielsen said.

Bob Heinith said CRITFC generally concurs with the states' position on this issue. Two years ago, when these studies began, the Tribes asked that the study design be reviewed by the ISAB, in a formal letter sent to Rollie Schmitten. NMFS replied that the Tribes should have made their concerns known through participation in the NMFS forum, and that the studies would proceed as planned. We're now two years down the road, Heinith said, and we still don't have concurrence on the basic study design, much less the results of the study. Now NMFS wants to go forward with a new round of study, despite the lack of regional agreement on the study design, spending another $500,000. This raises an accountability issue; when we ask Congress for money for research under the CRFM budget, if there is the type of serious disagreement we see on this issue, then the study should not go forward, Heinith said. Therefore, the Tribes feel that survival should be evaluated under a the static 64% spill level set in the BiOp, and that we need to compare the results from all routes of passage at The Dalles. John Day should be treated as a decoupled and separate issue, Heinith said.

Nigro said Oregon agrees with the points made by WDFW and CRITFC. Ron Boyce added that ODFW is still unclear about the information on which NMFS is basing its conclusion that 64% spill is compromising fish survival at The Dalles. Our review of the study results from 1997 and 1998 leads to exactly the opposite conclusion, Boyce said. We believe that alternating 64% and 30% spill within the season leads to confounding results, and that the best results can be obtained through a static spill condition; we also believe that any spill studies proposed for John Day Dam should not limit the study plans at The Dalles, and that that should be a separable discussion, Boyce said.

So there you have the impasse, in a nutshell, Silverberg said. Ruff asked whether, given the magnitude of the runoff forecast this spring, it will even be feasible to restrict spill to 30% at The Dalles so that a 30% vs. 64% spill test could be done. Rock Peters replied that, based on the current forecast, the Corps believes the test will be feasible, except for about a one-week period this spring.

Ultimately, John Ferguson observed that a better understanding of the relative statistical precision of the two proposed study designs is needed before an informed decision can be made. Is it fair to say that the IT is interested in having NMFS pursue such a comparison before making a decision? Brown asked. Yes, Nigro replied, observing that it is possible that such a statistical analysis may show that neither study design has the power to answer the basic question. I think the group needs to be prepared for that possibility, he said, and to begin to think about what we're going to do if it looks as though further testing isn't going to clear up some of this uncertainty. He added that, in Oregon's view, the default would be to maintain the BiOp spill levels at The Dalles, because the burden of proof required to change that program would not have been met.

In response to a question, Peters said the Corps plans to begin tagging fish for the study at The Dalles on May 1; he added that, if any major changes to the current study design are going to be necessary, the Corps needs to know about them as soon as possible.

Brown said Ben Sanford and Cliff Periera are currently working to refine the statistical precision of the within-season comparison proposed by NMFS for the 1999 test at The Dalles – is there agreement that Ben and Cliff should also look at the statistics involved in a between-year comparison, such as the one in the study design proposed by the states, or are there additional names we should be adding to that subgroup? Brown asked.

Again, from our perspective, because we're not looking at sluiceway survival this year, this is a major problem, Heinith said. According to the NMFS white paper, under a 30% spill regime, we could be sending 50% of the fish through the sluiceway, and we don't know what their survival is. To CRITFC, it seems as though our first priority should be to get a rigorous idea of the percentage of fish that are surviving sluiceway passage at The Dalles, Heinith said. In the Tribes' view, we need a solid evaluation of the relative survival of fish through all routes of passage at The Dalles, under a stable spill level of 64%.

Boyce said Oregon concurs with CRITFC's position, adding that none of the currently-proposed study protocols are designed to obtain adult recovery data. Oregon feels that adult information is very important for an adequate evaluation. Ferguson said he had discussed a possible adult survival evaluation methodology with Ben Sanford, but that they had concluded that, based on the available number of returning adults and other logistical challenges, a statistically meaningful evaluation simply is not feasible at this time.

Collis returned to Brown's suggestion that a statistical comparison of the relative precision of the within-year and between-year study designs needs to be accomplished before the IT can make a decision on which study should go forward at The Dalles in 1999. She asked Heinith if it is fair to say that the Tribes' position is that such a statistical comparison is unimportant, and that it would not be acceptable for spill at The Dalles to be reduced to 30% without changing the BiOp. We definitely think there needs to be consultation, Heinith replied, not only with the operating agencies, but with the Tribes, under the Secretarial Order – it needs to be a government-to-government consultation, and it needs to happen before this action is taken.

Boyce said that Oregon would prefer that the comparison of statistical precision between the two study designs be undertaken by the ISAB, if they are available in time. Ruff said he would check with Chip McConnaha on the availability of the ISAB to undertake this work.

Brown observed there seems to be a suspicion, among at least some parties in the region, that NMFS has already made some sort of determination about the relative merits of 30% vs. 64% spill at The Dalles. We have heard also that that would be a change to the Biological Opinion, which would require consultation on a number of different areas, he said. I want to make clear once again the fact that NMFS has not made a determination about the relative merits of 30% vs. 64% spill, said Brown; I agree that, if we were proposing such a change to the Biological Opinion, that that would require a fair amount of consultation.

Brown added that, in terms of the ISAB's involvement in this process, once we figure out which is the best study design at The Dalles for 1999, implement that study and have results, that would be the time to go to the ISAB to both evaluate how that study was done and whether we indeed got what we thought we got, and whether or not the way we are proposing to subsequently implement the results either in further study, or in adjustments to the mitigation program at The Dalles, make sense. We would either seek the ISAB's review of these items, or request their

advice on how best to obtain independent peer review of such a package, Brown said.

Jim Yost said that, in Idaho's view, the studies that have been done over the past two years need to be continued – we are more interested in the within-year study than the between-year study, he said, although Idaho does see some merit to a between-year study as well. Generally, said Yost, Idaho supports the NMFS-proposed study design, although we are also interested in seeing the assessment of the statistical validity of the within-year and between-year study designs go forward as soon as possible. Idaho also agrees that both the study design and its results ought to be reviewed by the ISAB to be sure that the study, as designed and implemented, is producing the information we need, Yost said.

Brown reiterated that NMFS began this study because of hydraulic model-based concerns about fish safety at 64% spill. Admittedly, he said, those hydraulic model observations were not very robust, which is why we wanted to do this study. If we continue this within-season comparison, and find that there is a difference in fish survival at 64% spill and 30% spill, that doesn't mean NMFS will automatically conclude 30% spill is the best program at The Dalles, Brown said -- it will only mean that we have obtained some validation of our original concern. At that point, we can begin to discuss ways to test the solution to that problem; that solution might include testing spill at a stable level to get at some of the concerns about predator distribution. I should add that such a stable spill level would not necessarily be either 30% or 64% spill, Brown added – it might be some level in between. Basically, however, at this point, all NMFS is trying to do is see whether or not there is any substance to our concern about 64% spill at The Dalles.

Fredricks suggested that it might make sense to broaden the scope of the review the ISAB be asked to undertake to include not only the study at The Dalles, but other survival studies of this type as well. I can anticipate similar discussions to the one we've had today in the future, unless we get this resolved, Fredricks said. Ruff agreed, saying that this puts a slightly different, and possibly more interesting, twist on the assignment to the ISAB.

Heinith made one final point: that this issue really comes down to whether a study should drive the spill operation at The Dalles, or the operation should drive the study. The state and tribal perspective is that the BiOp has specified a particular spill operation at The Dalles, Heinith said; what we should be studying is how effective that operation is. NMFS, on the other hand, is suggesting that we change the operation to accomplish the study, and that's a problem. Understood, said Brown.

After a few minutes of further discussion, Brown said it probably does not make sense to try to resolve The Dalles study design issue at today's meeting, given the additional work that needs to be done on study plan development and study plan statistical precision comparisons. We will consult with the other parties as appropriate, depending on where this goes as we get some of that additional information, Brown said. NMFS will ultimately provide a written record of our decision, and the basis for that decision, including a response to the comments we have received on the study plans and the need for additional consultation, he said. Can we discuss this further at the April IT meeting, rather than simply waiting for NMFS' written decision? Nigro asked. I have no objection to that, said Brown, although I suspect this may end up as a divisive issue. If that proves to be the case, and NMFS ends up making a decision over the objections of some or

all of the other salmon managers, I would like to do that as quickly and cleanly as we can, and move on, Brown said. I think it would be appropriate to develop the record of who agrees with the NMFS decision, and who objects, through this forum, and wrap it up as a formal policy item at the April IT meeting, Nigro said. No objections were raised to Nigro's proposal.

Silverberg summed up the future action on this issue by saying that Ruff has agreed to check on the ISAB's upcoming schedule and availability to address this issue; that development of the study designs will continue; that the statistical comparison of the relative precision of the two proposed study designs will move forward; that technical and policy-level consultations between NMFS and the states, tribes and federal operators will continue; and that this issue will be the subject of further discussion at the April IT meeting.

During the lunch break, Ruff checked with Council staff about the ISAB's potential interest in and availability to work on The Dalles spill passage study design; Ruff said that, first of all, Chip McConnaha and Eric Merrill replied with an unequivocal yes when asked if the ISAB would be the right group to look at a question such as this. I then asked when the ISAB might be available to address this question, said Ruff; apparently, having completed the Corps capital review, the ISAB has several qualified members available to undertake this task, and who have the time to do it now. That assumes, of course, both that we have the study plans in reviewable form, and that we have the question sufficiently well-framed for them to address, Ruff said.

I was also told, however, not to expect a quick turnaround on this question, said Ruff – it will take at least five to six months before the ISAB can complete its review. Bear in mind that it took them 15 months to complete the Corps capital review, he said, a task Congress asked them to turn around within six months.

So as we suspected, said Brown, the ISAB is not going to provide a silver bullet to resolve this issue within the next month or so. That brings us back to Gary Fredricks' suggestion that we broaden our question to the ISAB, to include not only the survival study at The Dalles, but other projects as well – how should we use project-level, reach-level or system-level juvenile survival information, and how should we incorporate adult return information, in establishing standards for reviewing the performance of individual projects? Personally, said Brown, I think that's a good question for the ISAB to spend some time on.

Brown suggested that the IT frame this question and issue for ISAB review some time in the next few months. Ruff agreed that this would be useful, adding that, if the IT can frame the question properly, the ISAB could give some very valuable guidance to the SCT, the IT and the rest of the region.

Who would be the most appropriate group to start framing that question, to create a strawman for discussion? Silverberg asked. Jim Yost suggested that NMFS be asked to create this strawman. With the understanding, said Ruff, that the study designs for The Dalles could be used as a specific example of the type of studies we're talking about. And the strawman will be informed by the next steps we already agreed to, said Silverberg – further consultation between NMFS and the other entities of concern, statistical analysis of the two study designs etc.? Yes, was the reply.

Hevlin raised the question of whether or not the ISAB is really the most appropriate group to

conduct this review. The answer is yes, Ruff replied. It may be yes from your standpoint, said Hevlin, but it isn't necessarily from mine, personally. However, that shouldn't prevent NMFS from framing this question, regardless of whether the ISAB or some other independent group is ultimately asked to review it, Witt Anderson said.

So NMFS will bring a list of framed issues and questions back to the IT, which the group can then discuss with the goal of obtaining guidance from some independent team of reviewers? Collis asked. Yes, Brown replied.

V. Decision on Proposed Merger of the DGT and Temperature Work Group into a Water Quality Team.

DGT chair Mark Schneider distributed Enclosure F, an information packet on the proposed merger of the Dissolved Gas Team and the Water Temperature Team into a single entity, the Water Quality Team. He touched on some of the reasons the various team members feel this merger would be a good idea, and laid out a possible scope of work for the newly combined WQT (please see Enclosure F for details). With that, Schneider said the DGT and Water Temperature Work Group seek the approval of the IT to merge, forming a Water Quality Team to support regional efforts under the Clean Water Act and Endangered Species Act.

Heinith asked how the state water quality agencies feel about the proposed merger; he also asked how the merger will promote stepwise solutions to bringing the mainstem into compliance over the next eight to 10 years. The state water quality agencies are all very supportive of the merger, Mary Lou Soscia replied; with respect to your second question, bringing the Columbia River system into compliance with the applicable water quality standards is going to be a very complex undertaking. There are a number of different fora that are currently grappling with that challenge, she said; I think that having a Water Quality Team that tries to interconnect some of the issues we're facing in the dissolved gas and temperature arenas will be an advantage for us all. There are physical and biological connections between gas and temperature, and the decisions we need to make to address those problems need to be connected and coordinated also.

After a few minutes of further discussion, various IT members expressed support for the merger of the DGT and Water Temperature Team into a combined Water Quality Team; no objections were raised to the merger. Heinith said CRITFC is skeptical about how this merger is going to bring about any concrete improvement in water quality standards compliance, but is willing to allow the merger to go forward.

Brown said that, in his view, the merger is an excellent idea, although it represents a fairly significant change in the Regional Forum organizational structure. Brown suggested that the Water Quality Team go ahead and schedule its planned April meeting, but allow a check point to ensure that there is no executive-level concern about the merger. Absent any objection from the executives, Brown said, the merger is approved. Silverberg asked the other IT members to check with their executives to be sure there is no opposition to the merger; we'll then look for a final blessing at the April IT meeting, she said.

VI. EPA Temperature Model – Update.

Soscia said the EPA water temperature model is currently undergoing peer review; she

distributed a sign-up sheet for anyone who is interested in receiving a copy of the model for review. She said any comments on the model need to be returned to her by April 9, adding that EPA will begin work on the systemwide dissolved gas model as soon as the temperature model is complete. Soscia said she will be working with John Palensky to schedule a public meeting on the water temperature model in Portland prior to the end of the peer review period.

VII. Transboundary Gas Group Update.

Schneider provided an update on the recent activities of the TGG, reporting that the most recent meeting of the group was held two weeks ago in Seattle. At that meeting, Schneider said, we heard presentations on the various subsections of what will eventually become the systemwide gas abatement study plan; at this point, we have a fairly lengthy document which needs some additional refinement. There are five major sections to the draft: an overview and sections on monitoring, modeling, biological effects, information sharing and operational and structural gas abatement.

The next step in this process is for the individual TGG subgroups to provide the steering committee, by the end of March, with completed drafts of each of their plan subsections, Schneider continued. At that point, the steering committee will produce a draft plan for full-group review at the committee's April 29 meeting in Spokane. Once that review is complete and the comments have been incorporated, we will have a systemwide gas abatement study plan to present to the IT, he said.

One concern, raised at the Seattle meeting, is the lack of funding for this effort, Schneider continued. We are now at a point where some of the independent consultants involved in this effort have begun to ask for financial assistance if they are to continue. I wanted to bring those requests to the IT, Schneider said, because the Transboundary Gas Group has no funds with which to pay these consultants.

Remember, the goal is to complete the study plan, which will identify what needs to be done to approach gas abatement on a systemwide basis, said Ruff. The TGG wants to pull together all of the available monitoring information, as well as data from all of the relevant studies, to develop a physical model of TDG levels which can tell us where the gas hot spots are in the river. At that point, he said, we can do some alternatives analysis to provide some guidance about the most efficient way to abate gas, both structurally and operationally. This effort has been largely voluntary so far, Ruff said, but we need to complete the study plan so that we can identify, for the region, how long it will take and what it will cost to implement the plan. We are now hearing from several of the private consultants involved in this effort that they need at least some funds if they are to complete their elements of the study plan, Ruff said, and we thought we had better make the IT aware of those requests before we respond to them.

After a few minutes of discussion, Brown said the IT doesn't really handle funding matters, unless they are referred there from another group. The discussion turned to the possibility of referring this request to the SCT; Anderson said there is no source of funds for the systemwide gas abatement study identified in the FY'99 CRFM budget. There needs to be some sort of a stick that forces some entity in this region to assume responsibility for funding the completion of the study plan, he said. Until that stick is raised, it is unlikely that anyone will step forward and

offer funds.

It sounds to me as though the answer from the IT is that there is no pot of money available to help the TGG to complete the study plan, said Ruff. That being the case, we will try some other avenues to get the job done. Palensky suggested that there may be private environmental study grants available to underwrite this work; Schneider agreed, but said the TGG has not yet investigated that potential source of funding.

If the answer from the IT is that there are no funds available to help complete the study plan, said Ruff, it would still be helpful for the IT to continue to express its support for this effort, so that the various agency staff members involved can continue to work on it. No objections were raised to Ruff's request.

VIII. Snake River Flow Augmentation Work Group Update.

Paul Wagner explained that this work group was formed to address the flow-related issues raised at the last IT meeting, involving the 427 KAF in salmon flow augmentation from Idaho. Jim Yost requested the development of a clear justification for, and documentation of, the value of the 427 KAF Idaho contribution, to inform the Idaho state legislature's debate about whether or not that contribution should be continued. Jim proposed that PATH be asked to undertake this analysis, said Wagner; when the flow augmentation work group met, however, they felt that PATH would not be the most appropriate tool to use. Instead, they felt that a tool resembling the 1995 Biological Opinion flow appendix would be more appropriate. PATH modeling may be used in the development of this analysis, Wagner said, but it would have a supporting, rather than a principal, role.

The other flow-related issue was raised by the Shoshone-Bannock tribes, Wagner said; so far, the flow augmentation work group has not been able to reach consensus on this issue, primarily because Keith Kutchins was not able to attend either of the work group meetings. Ruff said he had spoken to Kutchins via phone; what the Sho-Bans are interested in exploring, Ruff said, is using a Watershed Equity Team-type process to look at providing flow augmentation for both salmon and steelhead, and protection for resident fish and aquatic life in headwater reservoirs. In other words, Ruff said, the Sho-Bans are interested in providing both more stable reservoir levels and flows for salmon.

I told Keith that my sense was that there are a number of ongoing studies and other processes – mainly through PATH, the Lower Snake Feasibility Study and the Council's Framework process – that are addressing this issue, said Ruff; I told Keith it would probably make more sense to try to fit a tribal alternative into one of those existing processes than it would to start a new process. Keith tended to agree with me, Ruff said, and said he was going to explore that more fully, because the Sho-Bans are working with the other basin tribes to develop a tribal alternative for the Framework process.

After a few minutes of further discussion, Yost summarized the outcome of the discussion of Idaho's request by saying that, given the fact that it now appears that PATH is not the first alternative to do the requested analysis, it has been suggested that flow augmentation work group take a look at the information in the Bureau of Reclamation consultation with NMFS on the 427

KAF, at the PIT-tag smolt survival data, in the A-Fish appendix, the 1995 BiOp appendix and the 1998 supplemental BiOp, and condense all of that information into a document explaining the rationale in support of continued flow augmentation. We will then see whether or not that satisfies Idaho's needs, Yost said.

The work group was actually formed to answer two basic questions, Brown observed: first, whether or not PATH was the most appropriate group to undertake the analysis Idaho is requesting. The answer to that question, from the work group, was no, PATH is not the most appropriate source of that analysis. The second question had to do with the Sho-Ban issue, said Brown; we have heard the current status of that issue today. While I agree with what Jim said about the need to pull all of the available information on flow augmentation into a cohesive product, Brown said, the IT needs to consider whether or not to ask the ad hoc flow augmentation work group to actually produce that document.

After some minutes of further deliberation, the IT tasked the flow augmentation work group to collaboratively develop a document, based on existing information such as the 1995 BiOp appendix, the 1998 supplemental BiOp, the A-Fish appendix, the Reclamation 427 KAF report etc., summarizing the information in support of the continued use of Idaho water for salmon flow augmentation. It was agreed that the work group will target June for the presentation of its draft report to the IT.

IX. The Columbia Basin Regional Forum and Its Relationship to IT.

Palensky said that, on January 29, the Columbia River Basin Forum was largely put in place, with all but three of the eligible participants either signing or indicating that they would sign the Memorandum of Agreement forming the CRBF. On March 10, the CRBF will hold its first official meeting, to discuss schedule, organizational issues and workload.

With the formation of the Columbia River Basin Forum, Palensky said, the question of the relationship between that body and the NMFS Regional Forum has arisen. Specifically, he said, some have asked what happens to the Executive Committee, because of the concern that the CRBF and the EC would be largely redundant. Palensky distributed a draft issue paper outlining these concerns, together with some possible alternatives for resolution of the issue of the CRBF's relationship to the Regional Forum, and some background information on the respective structure and mode of operation of the Regional Forum and the Columbia River Basin Forum (Enclosure G). Palensky suggested that it would be appropriate for the IT to discuss this issue and provide its input.

Palensky went over the contents of Enclosure G; please see this document for details of his presentation. He asked whether the IT wanted to provide any input to the draft issue paper before it is presented at the CRBF's March 10 meeting. After a few minutes of discussion, it was agreed that Palensky's document does an excellent job of laying out some of the potential futures in terms of CRBF/RF interactions, and provides a good starting-point for the discussion of this issue at the Columbia River Basin Forum meeting on March 10. No substantive IT comments were offered at this time.

X. Implementation Team Facilitation.

As most of you will recall, Palensky said, the first year's facilitation contract was essentially a trial period, while we assessed the usefulness of facilitation to the various Regional Forum committees. He said he had submitted a facilitation contract for FY'99 to the BPA/CBFWA prioritization process; that contract was approved, Palensky said. However, before it goes into effect, I wanted to check to be sure that the participants in the various Regional Forum committees still feel that facilitation is valuable, he said.

Palensky noted that the feedback received on facilitation at the recent Regional Forum chairs meeting was by and large extremely positive. The IT spent a few minutes discussing the facilitation contract, and whether or not it includes sufficient scope to allow facilitation for other, currently unfacilitated groups, such as the TGG and the Columbia River Basin Forum. Palensky noted that the FY'99 facilitation contract includes considerably more funds than were spent on facilitation services in FY'98, so some flexibility may exist.

To wrap this up, said Anderson, it sounds as though everyone at IT agrees that facilitation has been beneficial, and there is contractual and funding flexibility, as far as how facilitation will be used in FY'99. Is there anything more that needs to be said? Not from my perspective, Palensky said. Nielsen added that he has become a strong advocate of facilitation; particularly for the Technical Management Team, he said, I think facilitation has been a huge success. Palensky said that, prior to the next IT meeting, he will develop a list of facilitation activities (e.g. current and potential groups for which facilitation is or may be appropriate) for the group's approval. Once this list is developed, it will be forwarded to Alan Ruger, who oversees the facilitation contract for BPA.

XI. Multi-Species Framework Update.

The development of the Multi-Species Framework is continuing, said Palensky; a new draft of the alternatives for analysis is now available, and reflects some fairly substantial changes from the previous version. He said this document is available via the Multi-Species Framework's Internet homepage.

Palensky said the Framework's process' ecological and human effects work groups are now evaluating these alternatives for cohesiveness, mutually-exclusive elements and overall readiness to analysis. By mid-April, the work groups are expected to complete their review of the alternatives, and will then make whatever revisions are necessary. The formal analytical process is expected to begin in June, and conclude by the end of summer. Palensky added that a series of public meetings explaining the framework process is now underway.

XII. Next IT Meeting Date and Agenda Items.

The next meeting of the Implementation Team was set for Thursday, April 8 from 9 a.m. to 4 p.m. at NMFS' Portland offices. Meeting notes prepared by Jeff Kuechle, BPA contractor.